



# Global Overview and European Regulations

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“Life After EU RoHS”

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## Outline

- ◆ RoHS Directive and Copycats
- ◆ EU RoHS Gap Analysis
- ◆ REACH Regime
- ◆ EuP Directive



# Compliance Objectives

- ◆ Lots of moving parts, new issues and limited guidance
  - ◆ Judgment calls & “business decisions”
  - ◆ Fact-specific application to each company (and sometimes divisions or businesses within each company)
- ◆ Work through compliance/legal team
- ◆ Last-minute changes may not be feasible or appropriate
- ◆ BUT compliance strategy will continue to evolve
  - ◆ Seek appropriate balance between over-compliance and under-compliance
  - ◆ Consider aggressive-leaning or conservative-leaning approaches/interpretations, depending on situation
  - ◆ Consider challenge of maintaining consistency



## **Notice**

This Presentation is for General Guidance  
Only and Does Not Contain  
Definitive Advice



# Section 1

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RoHS Directive and Copycats



## Overview: Global RoHS Trends

- ◆ 25 EU Member States
- ◆ Switzerland
- ◆ 3 EEA countries: Iceland, Norway and Liechtenstein
- ◆ 2 accession countries: Bulgaria and Romania
- ◆ Turkish RoHS
- ◆ RoHS in Asia: China, Japan, Korea
- ◆ California RoHS + other US



## EU + 4

- ◆ 25 EU Member States
  - ◆ All have implemented RoHS, most have implemented WEEE
- ◆ Switzerland
  - ◆ Not part of EU, but has laws almost identical to EU WEEE and RoHS
  - ◆ “Domestic market” application
  - ◆ Maximum concentration values have not been officially adopted
- ◆ European Economic Area (EEA) countries
  - ◆ Iceland, Norway and Liechtenstein
  - ◆ Same as EU WEEE and RoHS
  - ◆ “EU + EEA market” application



## EU Accession Countries

- ◆ Bulgaria and Romania are due to accede to the EU in 2007
- ◆ Will need to implement WEEE and RoHS by then, but may ask for derogations if they don't have infrastructure in place
- ◆ Bulgarian RoHS already adopted and set to take effect January 1, 2007
- ◆ Romanian WEEE registration deadline was April 30, 2006



## Turkish RoHS

- ◆ Issued May 13, 2006 in Official Gazette
- ◆ Requires related regulations to be issued in the future
- ◆ Regulations are under preparation and will most likely grant a 1 - 2 year transition period



## China RoHS



- ◆ China's Ministry of Information Industry (MII) drafted "Management Methods for Controlling Pollution Caused by Electronic Information Products," referred to as "China RoHS"
- ◆ China RoHS is an "enabling law" – simply the first step in the rulemaking process
- ◆ Two sets of requirements
  - ◆ Labeling and information disclosure (broad scope)
    - ◆ March 1, 2007
  - ◆ Substance restrictions, verified by compulsory pre-market testing and certification (narrower scope at first)
    - ◆ Dates TBD



## China RoHS vs. EU RoHS

- ◆ Similarities
  - ◆ “Electronic Information Product” broadly defined
  - ◆ Substance ban (same six substances)
- ◆ Differences
  - ◆ Additional and different requirements
    - ◆ All EIPs
      - ◆ Labeling: marking, disclosure and packaging
    - ◆ Products listed in the “Catalog” (a subset of EIPs)
      - ◆ All of the above + substance ban + pre-market certification
  - ◆ Rolling implementation dates



## Japan RoHS

- ◆ No substance restriction—only labeling and reporting
  - ◆ Same six substances of concern
  - ◆ Personal computers (CRT & LCD), unit-type air conditioners, televisions, microwave ovens, clothes dryers, electric refrigerators, electric washing machines and copying machines
- ◆ Implementation: July 2006
- ◆ JIS Standard C0950 will be mandatory
  - ◆ Gives specific guidance on the new labeling and reporting requirements



## Korea RoHS

- ◆ Korea is considering a RoHS type ban
  - ◆ Bill (under consideration) incorporates aspects of WEEE, RoHS and EuP
- ◆ Proposed implementation: July 2007
- ◆ Product scope: electronic products operated by electricity and magnetic fields, and automotives
- ◆ Substance scope
  - ◆ Six RoHS substances will be banned and companies will need self-declarations complying with the law
- ◆ Exemptions from EU RoHS are expected to be applicable in Korea



## Section 2

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### EU RoHS Gap Analysis



## 3 Different Sales Restrictions

- ◆ Selling refurbished and repaired EEE
  - ◆ “Reuse” of EEE that was POTM in EU before July 1 is exempted, but not sale of “as new” products
- ◆ Swapping “spare parts”
  - ◆ Rule of thumb: A “part” is a product that is physically inserted into a bigger piece of equipment (board)
  - ◆ If you are sending a non-RoHS compliant “spare part,” it must be for EEE that is grandfathered (POTM in EU before July 1, 2006)
- ◆ Swapping “whole units”
  - ◆ According to verbal guidance from Commission, “spare part” exemption does not apply to “whole unit” exchanges
  - ◆ Rule of thumb, but some are taking a different view



## Obtain MDs/CoCs from Suppliers

- ◆ Stand-alone CoC/MD may not be enforceable
- ◆ Tracking system
- ◆ Request updated MDs/CoCs from suppliers (annually and upon product changes)
- ◆ Use industry standard to the extent possible
- ◆ Review contracts with suppliers
  - ◆ RoHS compliance representation
  - ◆ Indemnity for losses relating to RoHS
  - ◆ Right to audit



# Establish Testing/Auditing Procedures

## ◆ Testing

- ◆ IEC 62321 standard “*Procedures for the determination of six regulated substances in electrotechnical products*” – Currently draft, final release expected March 2007
- ◆ IEC 62321 specifies analytical test methods, but not how to define/isolate “homogeneous materials” for testing. Test results for some electronic materials may be uncertain/inconclusive, particularly when performing testing at finished-product level
- ◆ 3 common testing options:
  - ◆ Perform risk-based screening with XRF (can be done internally)
  - ◆ Outsource testing to experienced labs
  - ◆ Require suppliers to perform testing in supply chain

## ◆ Auditing

- ◆ Many possible approaches: Consider adapting existing auditing practices/procedures to RoHS compliance activities



## Develop Internal Due Diligence Policy

- ◆ UK due diligence defense is only available in the UK (and Poland)
- ◆ Blue print for compliance strategy but does not guarantee compliance – minimum
- ◆ Suggested Elements
  - ◆ Get materials declaration
  - ◆ Product marking in supply chain
  - ◆ Analysis (testing)
  - ◆ Technical dossier (28 days, 4 years)



# RoHS Enforcement Guidance

- ◆ RoHS compliance documentation
  - ◆ Common market surveillance methodology
  - ◆ Overall approach based on “presumption of conformity”
- ◆ Investigation methodology
  - ◆ Targeted XRF analysis
  - ◆ Request information from producer
  - ◆ Determination whether sufficient evidence of active supply chain RoHS management or of evidence that all homogeneous materials comply
  - ◆ May initiate product sampling and testing



## Quantify Risk: Fines and Penalties

- ◆ Monetary fines
  - ◆ Estonia: Maximum EUR 1.5 million
  - ◆ France: Maximum EUR 7,500 *per infraction*
  - ◆ Spain: Maximum EUR 1.2 million *per infraction*
  - ◆ Netherlands and UK: No maximum limit
- ◆ Prohibition on sales (Ireland, Finland, Poland)
- ◆ Revocation of trade licenses (Czech Republic, Poland, Spain)
- ◆ Product recall (Germany, Ireland)
- ◆ Imprisonment (in at least 8 jurisdictions, including the Netherlands and Ireland)



## Revisit WEEE Compliance

- ◆ *Each product has its producer<sup>TM</sup>*
- ◆ OEM vs. distributor registration
- ◆ Information for consumers
  - ◆ Producers must provide certain WEEE information to B2C end users, e.g. in the instructions for use or at the point of sale
- ◆ Information for treatment facilities
- ◆ Registration number
  - ◆ Registered companies must state their registration numbers on all purchase orders and invoices
- ◆ Producer labeling



## Section 3

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REACH Regime



## REACH – Background Information

- ◆ Draft EU Regulation to establish integrated system for Registration, Evaluation and Authorization of Chemicals
- ◆ Aims
  - ⇒ to simplify the EU chemicals laws
  - ⇒ to better protect human health and the environment
- ◆ Shift of responsibility and costs to the industry
- ◆ **EU Regulation**, not Directive like WEEE and RoHS



*“REACH is one of the largest and most complex pieces of legislation ever attempted by the European Union”*

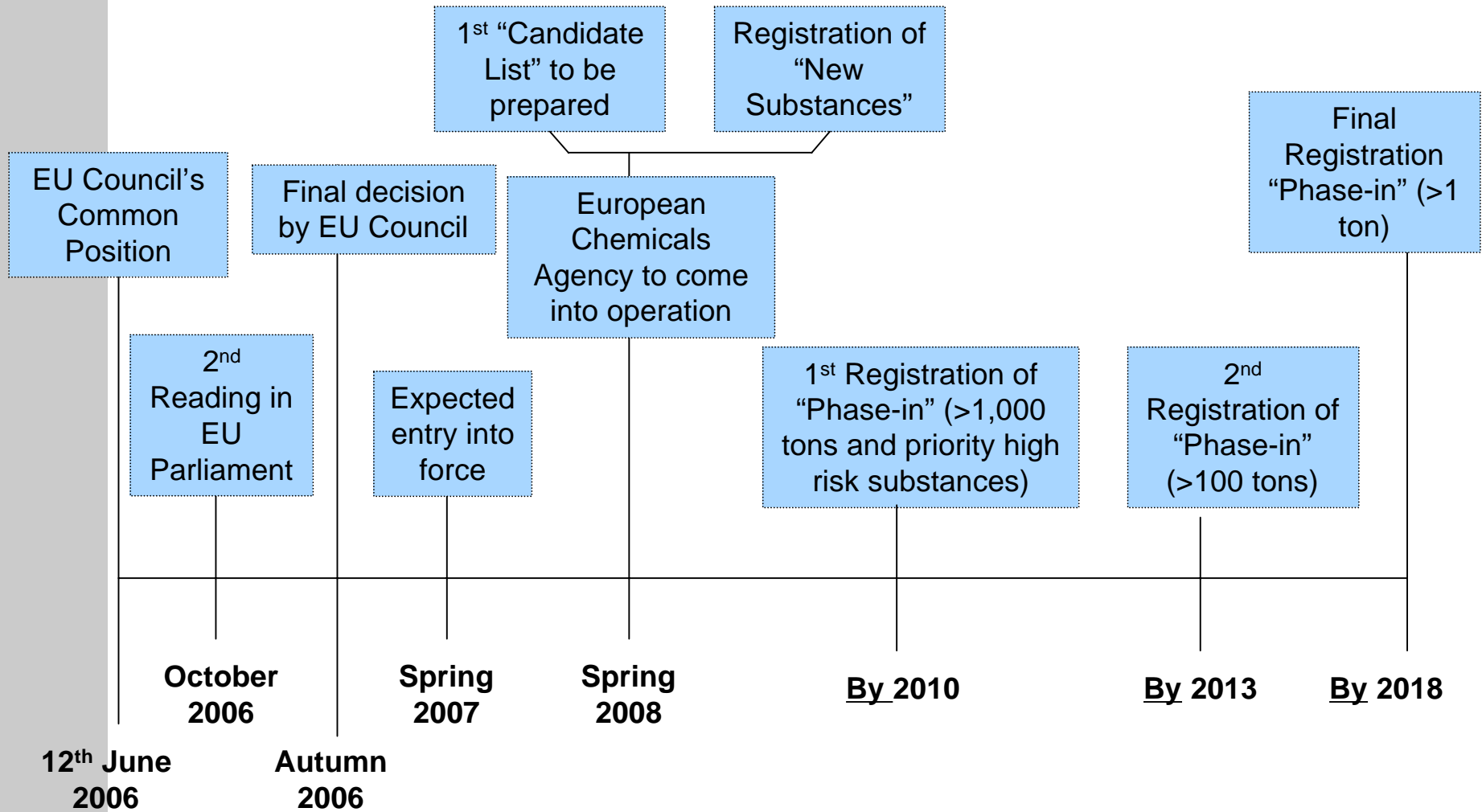


An enthusiastic MEP...



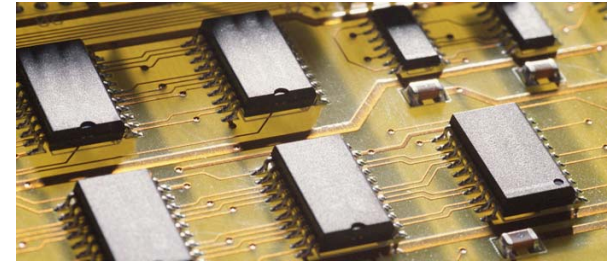


# REACH Timeline





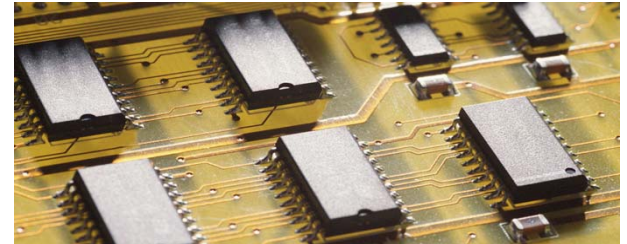
# Implications for the U.S. High-Tech Industry (1)



- ◆ Companies importing only finished products
  - ◆ REACH applies if substances are “intended to be released under normal or reasonably foreseeable conditions of use”
  - ◆ Make sure customers have necessary information for safe use of products
  - ◆ Distributors must ensure safety information is provided with the substances they sell
  - ◆ If subject to registration requirement, register or confirm chemical manufacturer complies and its registration applies to your use






## Implications for the U.S. High-Tech Industry (2)



- ◆ Manufacturing in Europe
  - ◆ Use approved chemical substances
  - ◆ Make sure use is consistent with manufacturers' intended use for which tests have been concluded
  - ◆ Review contracts with suppliers and customers
  - ◆ Downstream users responsible for assessing risks arising from uses not covered by safety data sheet received from their suppliers
  - ◆ If not,
    - ◆ change supplier or consider alternative substances
    - ◆ test and register
    - ◆ move operations



## *REACH Closing thoughts...*

- ◆ Not yet law – so it may change!
- ◆ Key references:
  -  Common Position dated June 12, 2006
  -  Commission's Q&As dated March 23, 2006
  -  The European Chemicals Bureau's webpage (<http://ecb.jrc.it/REACH/>)



## Section 4

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EuP Directive



## EuP = Framework Directive

- ◆ Published in Official Journal July 22, 2005
- ◆ A **framework** for setting eco-design requirements for energy using products
- ◆ Eco-design standards will be developed on a product-by-product basis
- ◆ By July 2007, Commission to establish a 3-year work plan setting forth priority products
- ◆ Commission to bring forward proposals for “implementing measures” in the meantime



## Implementing Measures

- ◆ Will specify:
  - ◆ Exact definition of EuPs covered
  - ◆ Eco-design requirements
  - ◆ Details for conformity assessment
  - ◆ Requirements for technical documentation
  - ◆ Duration of transitional period
- ◆ Stakeholder consultation required
- ◆ Industry self regulation could be an alternative to compulsory standards



## Eco-Design Standards

- ◆ Likely factors for regulation:
  - ◆ Consumption of raw materials, energy and resources
  - ◆ Emissions to air, water and soil (both during product use and after disposal)
  - ◆ Pollution through noise, vibration, radiation, electromagnetic fields
  - ◆ Waste material generated at end of life
  - ◆ Reuse, recycling and recovery of materials and energy
- ◆ CE marking and conformity assessment will apply
- ◆ Information requirements for consumers



## Criteria for Products to be Covered

- ◆ Significant volume of sales and trade: more than 200,000 units/year in the EU
- ◆ Significant environmental impact
- ◆ Significant potential for improvement without entailing excessive costs
- ◆ Means of transport are excluded from scope

More information:

[http://ec.europa.eu/enterprise/eco\\_design/index\\_en.htm](http://ec.europa.eu/enterprise/eco_design/index_en.htm)



Thank you

◆ Questions?